

II. REMARKS

United States Serial No. 10/787,507, was filed on February 26, 2004. In view of the remarks set forth herein, Applicants respectfully request reconsideration and allowance of claims 1-32.

Restriction Requirement

The Examiner required restriction under 35 U.S.C. § 121 to one of the following:

- Group I: claims 1-32, drawn to a strength improvement admixture, classified in class 524, subclass 186.
- Group II: Claims 33-50, drawn to a method of making a cementitious composition, classified in class 106, subclass 819.

In Response A to the Election/Restriction Requirement, an election with traverse was made to prosecute the invention of Group I, and the species of N,N,N',N'-tetra(hydroxyethyl)ethylenediamine, which reads on claims 1-3, 5-9, 12-17, 19-23 and 26-32.

Applicants hereby confirm the election of the claims of Group I (claims 1-32) for prosecution in the present invention, and respectfully reserve the right to file claims 33-50 in one or more divisional applications.

35 U.S.C. §102(b)

Claims 1-3, 5-9, 12-17, 19-23 and 26-32 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,290,770 ("Moreau"). It is alleged in the Office Action at page 3 that Moreau discloses an admixture for cementitious compositions comprising (1) a polycarboxylate dispersant, (2) polyhydroxylalkylamine (specifically tetra(hydroxyethyl)ethylenediamine), and (3) a claimed set retarder (a carboxylic acid salt in Table 1A).

Applicants respectfully traverse this rejection. To establish anticipation of a claim, each and every element as set forth in the claim must be found, either expressly or inherently described, in the single prior art reference. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Moreau does not disclose the use of a set retarder in combination with a polycarboxylate dispersant and a strength improvement additive. The Office Action specifically refers to the first two columns of Table 1A as teaching all three components. Column 10, Lines 54-64. The table includes, in addition to other additives, (1) a polymer, (2) a polyhydroxylalkylamine, and (3) a carboxylic acid salt. However, carboxylic acid salts are not set retarders. Carboxylic acid salts are accelerators. The present application, as well as Moreau, discloses that carboxylic acid salts of alkali metal, alkaline earth metal, or aluminum are preferred accelerators. Specification Page 24, Lines 12-19; Moreau Column 9, Lines 19-34.

Accordingly, claims 12 and 26 have been clarified to remove the reference to carboxylic acid salts as a set retarder, and read as follows:

12. (Currently Amended) The admixture composition of claim 1 wherein the set retarder is selected from the group consisting of an oxy-boron compound, a polyphosphonic acid, ~~a carboxylic acid~~, a hydroxycarboxylic acid, polycarboxylic acid, hydroxylated carboxylic acid, fumaric, itaconic, malonic, borax, gluconic, and tartaric acid, lignosulfonates, ascorbic acid, isoascorbic acid, sulphonic acid-

acrylic acid copolymer, and their corresponding salts, a carboxylic acid, polyhydroxysilane, polyacrylamide, carbohydrates and mixtures thereof.

26. (Currently Amended) The cementitious composition of claim 15 wherein the set retarder is selected from the group consisting of an oxy-boron compound, a polyphosphonic acid, ~~a carboxylic acid~~, a hydroxycarboxylic acid, polycarboxylic acid, hydroxylated carboxylic acid, fumaric, itaconic, malonic, borax, gluconic, and tartaric acid, lignosulfonates, ascorbic acid, isoascorbic acid, sulphonic acid-acrylic acid copolymer, and their corresponding salts, a carboxylic acid, polyhydroxysilane, polyacrylamide, carbohydrates and mixtures thereof.

Therefore, Moreau does not teach a strength improvement admixture composition comprising the combination of (1) a polycarboxylate dispersant, (2) a set retarder, and (3) a strength improvement additive, as claimed.

In view of the above remarks, Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection over Moreau of claims 1-3, 5-9, 12-17, 19-23 and 26-32.

35 U.S.C. §102(e)

Claims 1-3, 5-9, 12-17, 19-23 and 26-32 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application No. 2003/0127026 ("Anderson"). It is alleged in the Office Action at page 3 that Anderson discloses an additive for cementitious compositions comprising (1) a polycarboxylate dispersant, (2) polyhydroxylalkylamine (specifically tetra(hydroxyethyl)ethylenediamine), and (3) a set retarder.

Anderson teaches a high early-strength cementitious composition admixture system comprising a polycarboxylate dispersant, an accelerator and a retarder. Page 1, Paragraph 10. Anderson discloses that the accelerator may be a polyhydroxylalkylamine (preferably tetrahydroxyethylethylenediamine). Page 8, Paragraph 149. However, Anderson teaches that the admixture composition is

composed of 85-95% accelerator, 5-12% dispersant, and 0-2% retarder based on solids (dry) content. Page 8, Paragraph 154, Table A; Page 8, Paragraph 156.

In contrast to Anderson, the admixture composition as claimed includes about 5 to about 80% polycarboxylate dispersant (Page 5, lines 17-19, Claim 2), about 0.5 to about 40% set retarder (Page 20, lines 9-10, Claim 2), and about 0.5 to about 40% strength improvement additive which may include a polyhydroxyalkylamine (Page 20, lines 26-28, Claim 2) based on the total dry weight of the admixture composition.

Claims 1 and 15 been amended to incorporate the ranges of the components recited in dependent claim 2:

1. (Currently Amended) A strength improvement admixture composition comprising:
 - a. polycarboxylate dispersant;
 - b. set retarder; and
 - c. a strength improvement additive selected from the group consisting of poly(hydroxyalkylated)polyethyleneamines, poly(hydroxyalkylated)polyethylenepolyamines, poly(hydroxyalkylated)polyethyleneimines, poly(hydroxyalkylated)polyamines, hydrazines, 1,2-diaminopropane, polyglycoldiamine, poly(hydroxyalkyl)amines and mixtures thereof;
wherein the amount of polycarboxylate dispersant is from about 5% to about 80%, the set retarder is from about 0.5% to about 40%, and the strength improvement additive is from about 0.5% to about 40% based on the total dry weight of the admixture composition components.
15. (Currently Amended) A cementitious composition comprising hydraulic cement and a strength improvement admixture composition, said admixture composition comprising:
 - a. polycarboxylate dispersant;
 - b. set retarder; and

- c. a strength improvement additive selected from the group consisting of a poly(hydroxyalkylated)polyethyleneamines, poly(hydroxyalkylated)polyethylenepolyamines, poly(hydroxyalkylated)polyethyleneimines, poly(hydroxyalkylated)polyamines, hydrazines, 1,2-diaminopropane, polyglycoldiamine, poly(hydroxyalkyl)amines and mixtures thereof; wherein the amount of polycarboxylate dispersant is from about 5% to about 80%, the set retarder is from about 0.5% to about 40%, and the strength improvement additive is from about 0.5% to about 40% based on the total dry weight of the admixture composition components.

Applicants, therefore, respectfully request withdrawal of the 35 U.S.C. §102(e) rejection over Anderson of claims 1-3, 5-9, 12-17, 19-23 and 26-32.

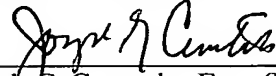
Other Claim Amendments

Independent claim 15 is directed to a cementitious composition. The preamble of claim 25, depending from claim 15, has been clarified to refer to a cementitious composition rather than an admixture. Applicants submit that this is merely a correction of a minor typographical error, and does not involve the addition of new matter.

In view of the above amendments and remarks, Applicants respectfully request the 35 U.S.C. §102(b) and (e) rejections be withdrawn, and that the Examiner issue a formal notice of allowance directed to claims 1-32.

Should the Examiner have any questions regarding the remarks set forth herein,
Applicants' undersigned attorney would welcome a telephone call.

Respectfully submitted,



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